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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/044,398	01/09/2002	Roy J. Firestone	0026-011	8914

40972 7590 01/10/2005

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EXAMINER
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HWU, DAVIS D

ART UNIT	PAPER NUMBER
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3752

DATE MAILED: 01/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/044,398

Applicant(s)

FIRESTONE, ROY J.

Examiner

Davis D. Hwu

Art Unit

3752

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 22 November 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-12 and 22-46 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12, 22-31 and 39 is/are rejected.
- 7) ☒ Claim(s) 32-38 and 40-46 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**Response to Amendment**

1. Applicant's amendment and remarks of November 22, 2004 are acknowledged and entered.
2. Applicant's remarks have been fully considered.
3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

***Claim Rejections - 35 USC § 102***

4. Claims 1-6, 9-11, 22-25, 29, 31, and 39 are rejected under 35 U.S.C. 102(b) as being anticipated by Proudman.

Proudman shows an apparatus for proportioning a chemical with a solvent, comprising:

- a flow measurement apparatus 22 for measuring the flow rate of the solvent (water);
- a control unit 33 for calculating the quantity of chemical to be added to the solvent based at least in part on the flow rate of the solvent; and
- a flow control device including a pump 28 and a valve 26 for metering the quantity of the chemical added to the solvent.

A user first inputs a desired volume of chemical to be added into the control unit 33.

The control unit then monitors a totalizing flow meter 30 (a second flow measurement apparatus as recited in claim 2) and turns on the valve 26 of the chemical. The control unit monitors the difference between the solvent flow meter 22 and the totalizing flow meter 30 wherein the difference is the volume of the chemical. This volume amount is

fed back to the control unit to compare the volume with the desired volume. When the desired volume is reached, the valve 26 closes. Thus, the control unit is continuously calculating the quantity of chemical to be added to the solvent based at least in part on the flow rate of the solvent (Column 3, lines 3-12). Regarding claims 4 and 5, the functional limitations of using cleaning substance and soap do not give the claim patentable weight since these are intended use statements and also the device of Proudman is fully capable of using a cleaning substance or soap as the chemical.

***Claim Rejections - 35 USC § 103***

4. Claims 7, 8, 12, 26-28, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Proudman.

The flow of the solvent varying during the operation of the apparatus would have been an obvious matter of user preference if the user decides that more or less solvent is required during the operation. Regarding claim 12, the use of a solenoid valve would have been an obvious matter of design choice since the use of solenoid valves are well known in the art and the use of variable rate and air driven pumps as recited in claims 27 and 18 would also have been obvious matters of design choice since the use of such pumps is also well known in the art.

***Allowable Subject Matter***

5. Claims 32-38 and 40-46 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

6. Applicant's arguments filed November 22, 2004 have been fully considered but they are not persuasive. The controller monitors the volume of flow through both flow meters and calculates the quantity of chemical to be added by controlling the valve (Column 5, lines 30-39). The delivery rate of the chemical can thus be changed depending on the flow meters' feedbacks.

***Conclusion***

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Davis D. Hwu whose telephone number is 571-272-4904. The examiner can normally be reached on 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Scherbel can be reached on 571-272-4919. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 3752

9. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Davis Hwu  
Primary Examiner, AU 3752